

What is claimed is:

1. A variable view arthroscope having more than one viewing position in a range between a first viewing position and a second viewing position, comprising:
  - a housing having an input end and a control end, the housing having a longitudinal axis;
  - an input assembly disposed in the input end of the housing, a position of the input assembly defining a viewing position of the arthroscope, the position being adjustable;
  - a push rod mechanically connected to the input assembly to adjust the position of the input assembly;
  - a first magnet assembly disposed outside the housing, the first magnet assembly being rotatable around a first internal axis orthogonal to the longitudinal axis; and
  - a second magnet assembly disposed inside the housing, the second magnet assembly being rotatable around a second internal axis orthogonal to the longitudinal axis, said second magnet being mechanically coupled to the push rod, wherein rotation of the first magnet assembly magnetically induces rotation of the second magnet assembly, and wherein rotation of the second magnet assembly creates a linear motion of the push rod along the axis.
2. The arthroscope of claim 1 wherein at least one of the first magnet assembly and the second magnet assembly is an array of circularly disposed disc magnets.
3. The arthroscope of claim 2 wherein each of said magnet assemblies is a said array.
4. The arthroscope of claim 1 wherein at least one of the first magnet assembly and the second magnet assembly is a 4-pole, 1 face magnet.

5. The arthroscope of claim 4 wherein each of said magnet assemblies is a said magnet.
6. The arthroscope of claim 1, wherein the housing is sealed so that no moving parts penetrate the housing.
7. The arthroscope of claim 1, further comprising a control knob disposed outside the housing for rotating the first magnet assembly.
8. The arthroscope of claim 1, further comprising an internal magnet holder for supporting the second magnet assembly and a slide for driving the push rod, the internal magnet holder and the slide being coupled by a cam-axle assembly, the second magnet assembly being disposed on the axle of the cam-axle assembly and the cam engaging the slide.
9. An arthroscope control for manipulating an input assembly of a variable view arthroscope, the arthroscope having a housing extending along a longitudinal axis, the arthroscope having more than one viewing position, including a first viewing position and a second viewing position, the input assembly being movable and the orientation of the input assembly determining the viewing position of the arthroscope, comprising:  
  
a push rod having an input assembly end and a slide end disposed inside the housing, the push rod being connected to the input assembly at the input assembly end, the push rod being laterally movable between a first position corresponding to the first viewing position and a second position corresponding to the second viewing position;  
  
a control knob to select a position for the object input assembly disposed outside the housing, the control knob being rotatable;

a first magnet assembly mounted on the control knob, the first magnet assembly being annular and fixedly mounted on a shaft of the control knob, the first magnet assembly being rotatable with the control knob;

a second magnet assembly disposed inside the housing, the second magnet assembly being rotatable, the second magnet assembly being magnetically coupled to the first magnet assembly;

a cam-axle assembly to translate the rotational motion of the second magnet assembly into lateral motion, the cam-axle assembly being connected to the second magnet assembly and coupled to the push rod at the slide end, the cam-axle assembly inducing lateral motion in the push rod to move the push rod between the first position and the second position in response to rotation of the control knob.

10. The arthroscope control of claim 9, wherein the housing is sealed so that no moving parts penetrate the housing.

11. The arthroscope control of claim 9, wherein the first magnet and the second magnet are 4-pole, 1 face magnets.

12. The arthroscope of claim 9 wherein at least one of the first magnet assembly and the second magnet assembly is an array of circularly disposed disc magnets.

13. The arthroscope of claim 12 wherein each of said magnet assemblies is a said array.

14. The arthroscope of claim 9 wherein at least one of the first magnet assembly and the second magnet assembly is a 4-pole, 1 face magnet.

15. The arthroscope of claim 14 wherein each of said magnet assemblies is a said magnet.